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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043,220	01/14/2002	Ken-Hsien Lai	LOU 102	6207
23995	7590	10/07/2003	EXAMINER	
RABIN & CHAMPAGNE, PC 1101 14TH STREET, NW SUITE 500 WASHINGTON, DC 20005			MACKEY, JAMES P	
			ART UNIT	PAPER NUMBER
			1722	

DATE MAILED: 10/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/043,220	LAI ET AL.	
	Examiner	Art Unit	
	James Mackey	1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2/02</u> . | 6) <input type="checkbox"/> Other: _____. |

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1. Claim 3 is objected to because of the following informalities: the claim should end in a period. Appropriate correction is required.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 5, 7 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Reinhart (U.S. Patent 5,190,714; Figures 1-2 and 8-9).

Reinhart teaches a mold clamping unit comprising a plurality of tie bars 24 interconnecting front and rear platens 16, 22, with a movable platen 28 therebetween, the movable platen slidably sleeved about the tie bars, a servomotor 84, 110 mounted on the rear platen, a belt-gear mechanism associated with the servomotor and including an active gear, a passive gear and a belt 88, 120, a ball screw transmission mechanism including a ball screw 76, 101 and an internally threaded guide device 92, 105 connected to the passive gear of the belt-gear mechanism, one end of the ball screw axially movably mounted through the internally threaded guide device, the other end of the ball screw connected to a crosshead 38 of a toggle linkage mechanism by a nut connector device 78. Reinhart also discloses bearings 102, 107 associated with the guide device.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 4, 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reinhart (U.S. Patent 5,190,714; Figures 1-2 and 8-9).

Reinhart discloses the mold clamping unit substantially as claimed, as described above, except for explicitly describing a front bearing device for holding the rotating ball screw at the crosshead connector device, and except for explicitly describing the belt of the belt-gear mechanism as a timing belt. However, it would have been obvious and well within the level of ordinary skill in the art at the time of the invention to modify Reinhart, if not in fact intended, by providing a bearing device at the front end of the rotating ball screw at the connection to the toggle crosshead in order to facilitate the rotatable mounting of the ball screw to the crosshead. It would have been further obvious to a skilled artisan, if not in fact intended, to provide the belt of Reinhart as a conventional timing belt, especially considering the disclosure of Reinhart (col. 8, lines 21-24) that any conventional belt drive may be used.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

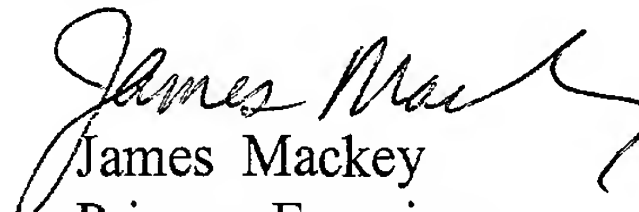
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Tsai (U.S. Patent 6,004,490; col. 3, lines 47-57) discloses a servomotor/timing gear arrangement for driving a ball screw connected to a toggle mechanism, noting that "better positioning accuracy" is provided by such an arrangement. Tamaki et al. (U.S. Patent 6,050,804) and Tsai et al. (U.S. Patent 6,478,571) each disclose servomotor/belt arrangements for driving a ball screw connected to a toggle mechanism.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Mackey whose telephone number is 703-308-1195. The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker can be reached on 703-308-0457. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.


James Mackey
Primary Examiner
Art Unit 1722

9/30/03

jpm
September 30, 2003